10/508968 PCT/US03/06981 DT04 Rec'd PCT/PT0 2 4 SEP 2004

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AMENDMENTS TO THE CLAIMS

1. (Currently amended) A method for the treatment of cancer comprising administration of a formulation comprising at least one compound of a pharmaceutical composition of the formulae:

$$R_1$$
 R_1
 R_1
 R_2
 R_1
 R_2
 R_3
 R_4
 R_4
 R_5
 R_5
 R_5
 R_6
 R_6
 R_7
 R_8
 R_8
 R_9
 R_9

X and Y may be different or the same and are independently selected from the group consisting of H, halogen, alkyl, alkoxy, aryl, substituted aryl, hydroxy, amino, alkylamino, cycloalkyl, morpholine, thiomorpholine, nitro, cyano, CF₃, OCF₃, COR₁, COOR₁, CONH₂, CONHR₁, and NHCOR₁;

n is an integer from one to three;

m is an integer from one to four;

R is selected from the group consisting of H, CH₃, C₂H₅, C₃H₇, C₄H₉, CH₂Ph, $CH_2C_6H_4-F(p-),$ $COCH_3$, $COCH_2$ CH₃, $CH_2CH_2N(CH_3)_2$, and CH₂CH₂CH₂N(CH₃)₂; and

R₁ and R₂ are independently selected from the group consisting of H, alkyl, substituted alkyl, alkenyl, substituted alkenyl, alkynyl, substituted alkynyl, cycloalkyl, substituted cycloalkyl, cycloalkenyl, substituted cycloalkenyl, polycycloalkyl, substituted polycycloalkyl, polycycloalkenyl, substituted polycycloalkenyl, arylalkyl, substituted arylalkyl, heteroarylalkyl, substituted heteroarylalkyl, arylcycloalkyl, substituted arylcycloalkyl, heteroarylcycloalkyl, substituted heteroarylcycloalkyl, heterocyclic ring, substituted heterocyclic ring, heteroatom, and substituted heteroatom.

2. (Currently amended) The method of Claim 1, wherein method for the treatment of cancer comprises administering a formulation comprising at least one compound selected from the group consisting of

S-4
$$S-4$$

$$S-5$$

$$S-6$$

$$S-7$$

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S-17
$$\stackrel{\mathsf{H}}{\triangleright}$$
 $\stackrel{\mathsf{N}}{\triangleright}$ $\stackrel{\mathsf{N}}{\triangleright}$ $\stackrel{\mathsf{N}}{\triangleright}$ $\stackrel{\mathsf{N}}{\triangleright}$

S-20
$$N$$

S-22
$$\stackrel{\mathsf{H}}{\bigcirc}$$
 $\stackrel{\mathsf{N}}{\bigcirc}$ $\stackrel{\mathsf{N}}{\bigcirc}$ $\stackrel{\mathsf{N}}{\bigcirc}$ $\stackrel{\mathsf{N}}{\bigcirc}$ $\stackrel{\mathsf{N}}{\bigcirc}$

S-23
$$\stackrel{\text{Br}}{\underset{\text{O}}{\bigvee}}$$
 $\stackrel{\text{O}}{\underset{\text{NH}}{\bigvee}}$

S-37
$$\stackrel{H}{\underset{O}{\bigvee}} \stackrel{N}{\underset{H}{\bigvee}} \stackrel{O}{\underset{NH}{\bigvee}} \stackrel{O}{\underset{NH}{\bigvee}}$$

$$S-38$$

S-56
$$\begin{pmatrix} 0 \\ 0 \\ 0 \\ 0 \end{pmatrix}$$
 $\begin{pmatrix} 1 \\ N \\ N \\ H \end{pmatrix}$ $\begin{pmatrix} 0 \\ N \\ N \\ N \end{pmatrix}$ $\begin{pmatrix} 0 \\ N \\ N \\ N \end{pmatrix}$

S-57 HO
$$\stackrel{\text{HO}}{\longrightarrow}$$
 $\stackrel{\text{N}}{\longrightarrow}$ $\stackrel{\text{N}}$

$$S-58$$

$$S-65$$

$$S-66$$

S-70
$$\stackrel{H}{\searrow}$$
 $\stackrel{N}{\searrow}$ $\stackrel{N}{\searrow}$ $\stackrel{N}{\searrow}$ $\stackrel{N}{\searrow}$ $\stackrel{H}{\searrow}$ $\stackrel{H}{\searrow}$

S-71
$$\stackrel{\circ}{\longrightarrow}$$
 $\stackrel{\circ}{\longrightarrow}$ $\stackrel{\circ}{\longrightarrow}$ $\stackrel{\circ}{\longrightarrow}$ $\stackrel{\circ}{\longrightarrow}$

S-72
$$N$$
 N N N N N

S-74
$$\begin{pmatrix} H \\ N \\ N \\ H \end{pmatrix}$$
 $\begin{pmatrix} N \\ N \\ H \end{pmatrix}$ $\begin{pmatrix} N \\ H \\ H \end{pmatrix}$

S-75
$$\begin{pmatrix} H \\ N \\ N \\ H \end{pmatrix}$$
 $\begin{pmatrix} N \\ N \\ H \end{pmatrix}$ $\begin{pmatrix} H \\ H \\ H \end{pmatrix}$

S-84
$$\begin{pmatrix} H & O \\ O & N \end{pmatrix}$$

=

S-96
$$\begin{pmatrix} H & O & H \\ O & N & N & H \end{pmatrix}$$

S-101
$$\begin{pmatrix} H & O \\ N & N \end{pmatrix}$$

S-102
$$\stackrel{\mathsf{H}}{\bigcirc}$$
 $\stackrel{\mathsf{N}}{\bigcirc}$ $\stackrel{\mathsf{N}}{\bigcirc}$ $\stackrel{\mathsf{N}}{\bigcirc}$ $\stackrel{\mathsf{N}}{\bigcirc}$ $\stackrel{\mathsf{N}}{\bigcirc}$

S-106
$$N$$

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B-122 H₃C O H_N O NH

B-123

B-124 O NH NH

B-125

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E-632 E-660 E-847 E-848 E-878 E-879 E-893 E-915 E-916

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E-932 E-933 E-934 E-935 E-952 E-953 E-954

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E-13615
$$\begin{pmatrix} N \\ N \\ N \\ N \\ H \end{pmatrix}$$
 $\begin{pmatrix} N \\ N \\ N \\ H \end{pmatrix}$ $\begin{pmatrix} N \\ N \\ N \\ H \end{pmatrix}$

3. (Original) A method for the treatment of cancer comprising administration of a formulation comprising at least one compound of a pharmaceutical composition of the formulae:

X and Y may be different or the same and are independently selected from the group consisting of H, halogen, alkyl, alkoxy, aryl, substituted aryl, hydroxy, amino, alkylamino, cycloalkyl, morpholine, thiomorpholine, nitro, cyano, CF₃, OCF₃, COR₁; COOR₁, CONH₂, CONHR₁, and NHCOR₁;

n is an integer from one to three;

m is an integer from one to four;

R is selected from the group consisting of H, CH₃, C₂H₅, C₃H₇, C₄H₉, CH₂Ph, CH₂C₆H₄-F(p-), COCH₃, COCH₂CH₃, CH₂CH₂N(CH₃)₂, and CH₂CH₂CH₂N(CH₃)₂; and

R₁ and R₂ are independently selected from the group consisting of H, alkyl, substituted alkyl, alkenyl, substituted alkynyl, substituted alkynyl, cycloalkyl, substituted cycloalkyl, cycloalkenyl, substituted cycloalkenyl, polycycloalkyl, substituted polycycloalkyl, polycycloalkenyl, substituted polycycloalkenyl, arylalkyl, substituted arylalkyl, heteroarylalkyl, substituted heteroarylalkyl, arylcycloalkyl, substituted arylcycloalkyl, heteroarylcycloalkyl, and substituted heteroarylcycloalkyl, heterocyclic ring, substituted heteroatom, substituted heteroatom, aryl, and substituted aryl, wherein at least one of R₁ and R₂ is selected from aryl or substituted aryl.

4. (Currently amended) The method of Claim 3, wherein method for the treatment of cancer comprises administering a formulation comprising at least one compound selected from the group consisting of

C-110

$$HO \longrightarrow NH$$
 $HO \longrightarrow NH$
 HO

$$B-4$$
 H_3C O N N N N

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B-59 **B-60** B-61 HN B-62 B-63 ИN **B-64** B-65 **B-66**

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$$B-95 \qquad \text{CI} \qquad \begin{array}{c} O \\ \\ CI \end{array} \qquad \begin{array}{c} N \\ \\ N \end{array} \qquad \begin{array}{c} O \\ \\ NH \end{array}$$

B-110
$$HO \longrightarrow HO$$

$$B-154 \qquad \begin{array}{c} H \\ O \\ O \\ CH_3 \end{array} \qquad \begin{array}{c} O \\ NH \\ CH_3 \end{array}$$

Ξ

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$$B-161 \qquad \begin{array}{c} CI \\ CI \\ \end{array} \qquad \begin{array}{c} H \\ \\ O \\ \end{array} \qquad \begin{array}{c} O \\ \\ NH \\ \end{array} \qquad \begin{array}{c} CI \\ \\ CI \\ \end{array}$$

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B-170 $\begin{array}{c}
CH_3 \\
CH_3 \\
O \\
CH_3
\end{array}$ $\begin{array}{c}
CH_3 \\
O \\
CH_3
\end{array}$ $\begin{array}{c}
CH_3 \\
O \\
CH_3
\end{array}$ $\begin{array}{c}
CH_3 \\
O \\
CH_3
\end{array}$

B-171 O CH₃
O CH₃
O CH₃

B-173 NH

B-174 H₃C CI

B-175 CI NH CI

B-176 N N N CI (176)

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B-203

B-207

B-208

B-210 B-210 H3C O H

B-211

B-212 H₃C O N NH NH NH

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B-219 H₃C,O N N O

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B-255
$$CI \longrightarrow HN \longrightarrow NH$$

B-266 $CI \longrightarrow HN \longrightarrow NH$

B-267 $HN \longrightarrow NH$

B-268 $H_3C \longrightarrow NH$

B-268 H

Ξ

B-283
$$CI \longrightarrow HN \longrightarrow NH$$
 $CI \longrightarrow HN \longrightarrow NH$ $CI \longrightarrow HN \longrightarrow NH$

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B-290 CI NH - O CI

B-291 ON NH OCI

B-292 ON NH OCI

B-293 S O N O CI

B-294 S O N O CI

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B-301

B-302

$$H_{N} = H_{N} = H_{N}$$

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E-872

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E-873

E-874

E-875

E-876

E-877

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 $E-880 \qquad \begin{array}{c} \text{OCH}_3 \\ \text{H}_3\text{CO} \\ \text{O} \\ \text{O} \\ \text{O} \\ \text{N} \\ \text{H} \end{array} \qquad \begin{array}{c} \text{OCH}_3 \\ \text{OCH}_3 \\ \text{OCH}_3 \\ \text{OCH}_3 \\ \text{O} \\ \text{O} \\ \text{O} \\ \text{O} \end{array}$

E-881

E-882

E-883

E-884

E-885

E-886

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E-887

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E-888

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E-889

$$CI \longrightarrow H \longrightarrow N \longrightarrow NH \longrightarrow CI$$

E-890

E-892

E-889

E-6357

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E-13142

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E-13143

E-13168

E-13169

E-13192

E-13199

E-13201

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E-13204

E-13210

E-13211	$ \begin{array}{c c} & H \\ & N \\$
E-13212	- OCH ₃
E-13213	$ \begin{array}{c c} & H \\ & N \\$
E-13214	O NH OCH3
E-13215	O NH CI
	OCH ₃
E-13216	H_3CO H_3CO N
E-13217	N N N O O O O O O O O O O O O O O O O O
E-13218	CI O N N O O O O O O O O O O O O O O O O

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E-13219

E-13220

E-13221

E-13222

E-13223

E-13224

E-13225

E-13226

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5. (Original) A method for the treatment of cancer comprising administration of a formulation comprising at least one compound of a pharmaceutical composition of the formulae:

$$\begin{array}{c|c}
A & N & X_m \\
N & X_m
\end{array}$$

$$\begin{array}{c|c}
A & X_m$$

$$\begin{array}{c|c}
A & X_m
\end{array}$$

$$\begin{array}{c|c}
A & X_m$$

$$\begin{array}{c|c}
A & X_m
\end{array}$$

$$\begin{array}{c|c}
A & X_m$$

$$\begin{array}{c|c}
A & X_m
\end{array}$$

$$\begin{array}{c|c}
A & X_m$$

$$\begin{array}{c|c}
A & X_m$$

$$\begin{array}{c|c}
A & X_m$$

$$\begin{array}{c|c}
A & X_m
\end{array}$$

$$\begin{array}{c|c}
A & X_m$$

$$\begin{array}{c|c}
A$$

wherein:

-

X and Y may be different or the same and are independently selected from the group consisting of H, halogen, alkyl, alkoxy, aryl, substituted aryl, hydroxy, amino, alkylamino, cycloalkyl, morpholine, thiomorpholine, nitro, cyano, CF₃, OCF₃, COR₁, COOR₁, CONH₂, CONHR₁, and NHCOR₁;

n is an integer from one to four;

m is an integer from one to four;

R is selected from the group consisting of H, CH₃, C₂H₅, C₃H₇, C₄H₉, CH₂Ph, CH₂C₆H₄-F(p-), COCH₃, COCH₂CH₃, CH₂CH₂N(CH₃)₂, and CH₂CH₂CH₂N(CH₃)₂; and

A and B rings independently comprise unsubstituted or substituted carbon atoms ranging from four carbon atoms to ten carbon atoms.

6. (Original) The method of Claim 5, wherein method for the treatment of cancer comprises administering a formulation comprising at least one compound selected from the group consisting of

7. (Original) A method for the treatment of cancer comprising administration of a formulation comprising at least one compound of a pharmaceutical composition of the formulae:

X and Y may be different or the same and are independently selected from the group consisting of H, halogen, alkyl, alkoxy, aryl, substituted aryl, hydroxy, amino,

alkylamino, cycloalkyl, morpholine, thiomorpholine, nitro, cyano, CF₃, OCF₃, COR₁, COOR₁, CONH₂, CONHR₁, and NHCOR₁;

n is an integer from one to three;

m is an integer from one to four;

R is selected from the group consisting of H, CH₃, C₂H₅, C₃H₇, C₄H₉, CH₂Ph, CH₂C₆H₄-F(p-), COCH₃, COCH₂CH₃, CH₂CH₂N(CH₃)₂, and CH₂CH₂CH₂N(CH₃)₂; and

R₁ is selected from the group consisting of H, alkyl, substituted alkyl, alkenyl, substituted alkenyl, alkynyl, substituted alkynyl, cycloalkyl, substituted cycloalkyl, cycloalkenyl, substituted cycloalkenyl, polycycloalkyl, substituted polycycloalkyl, polycycloalkenyl, substituted polycycloalkenyl, arylalkyl, substituted arylalkyl, heteroarylalkyl, substituted heteroarylalkyl, arylcycloalkyl, substituted arylcycloalkyl, heteroarylcycloalkyl, substituted heteroarylcycloalkyl, heterocyclic ring, substituted heteroarylcycloalkyl, heterocyclic ring, heteroatom, and substituted heteroatom.

8. (Original) - The method of Claim 7, wherein method for the treatment of cancer comprises administering a formulation comprising at least one compound selected from the group consisting of

9. (Currently amended) A method for the treatment of cancer comprising administration of a formulation comprising at least one compound of a pharmaceutical composition of the formulae:

$$X_{m}$$
 (GENUS E)

 X_{m} (GENUS E)

 X_{m} (GENUS E)

 X_{m} (Wherein:

X and Y may be different or the same and are independently selected from the group consisting of H, halogen, alkyl, alkoxy, aryl, substituted aryl, <u>fused aryl</u>, hydroxy, amino, alkylamino, cycloalkyl, morpholine, thiomorpholine, nitro, cyano, CF₃, OCF₃, COR₁, COR₂, COOR₂, CONH₂, CONH₃, CONH₄, CONH₇, and NHCOR₄, NHCOR₂;

n is an integer from one to three;

m is an integer from one to four;

R is selected from the group consisting of H, CH₃, C₂H₅, C₃H₇, C₄H₉, CH₂Ph, CH₂C₆H₄-F(p-), COCH₃, COCH₂CH₃, CH₂CH₂N(CH₃)₂, and CH₂CH₂CH₂N(CH₃)₂; and

R₂ is selected from the group consisting of H, alkyl, substituted alkyl, alkenyl, substituted alkenyl, alkynyl, substituted aryl, cycloalkyl, substituted cycloalkyl, cycloalkenyl, substituted cycloalkenyl, polycycloalkyl, substituted polycycloalkyl, polycycloalkenyl, substituted polycycloalkenyl, arylalkyl, substituted arylalkyl, heteroarylalkyl, substituted heteroarylalkyl, arylcycloalkyl, substituted arylcycloalkyl, heteroarylcycloalkyl, substituted heteroarylcycloalkyl, heterocyclic ring, substituted heteroatom, and substituted heteroatom.

10. (Original) The method of Claim 9, wherein method for the treatment of cancer comprises administering a formulation comprising at least one compound selected from the group consisting of

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C-1304
$$H_2N$$
 N N N N N N

C-1305
$$H_2N$$
 N N N N N N N N

C-1306
$$H_2N$$
 N N N N N N

$$S-26 \qquad \begin{array}{c} CI \\ \\ N \\ H \end{array} \qquad \begin{array}{c} O \\ NH \end{array}$$

S-61
$$F_3C$$
 N N N N

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$$B-91 \qquad \begin{array}{c} CI \\ N \\ N \\ H_{3}C \end{array} \qquad \begin{array}{c} CH_{3} \\ N \\ \end{array} \qquad \begin{array}{c} CI \\ CI \\ \end{array}$$

- 11. (Currently amended) The method as in any one of the preceding claims according to Claims 1, 3, 5, 7, or 9, in which the method further comprises administering at least one additional ingredient which is active in reducing at least one symptom associated with said cellular proliferation.
- 12. (Original) The method according to Claim 11, wherein said at least one additional ingredient is selected from the group consisting of antifungals, antivirals, antibiotics, anti-inflammatories, and anticancer agents.
- 13. (Original) The method according to Claim 11, wherein said at least one additional ingredient is selected from the group consisting of alkylating agent, antimetabolite, DNA cutter, topoisomerase I poison, topoisomerase II poison, DNA binder, and spindle poison.
- 14. (Currently amended) The method as in any one of the preceding claims according to Claims 1, 3, 5, 7, or 9, wherein said administering a formulation comprises providing to said mammal a dose of about 0.01 mg to about 100 mg per kg body weight per day.
- 15. (Original) The method according to Claim 14, wherein said dose is administered in divided doses at regular periodic intervals.
- 16. (Original) The method according to Claim 15, wherein said regular periodic intervals occur daily.

Claims 17-30 (Cancelled)

31. (New) The method of Claim 1, wherein the compound is

S-6

32. (New) The method of Claim 1, wherein the compound is

E-13619

33. (New) The method of Claim 1, wherein the compound is selected from the group consisting of

34. (New) A composition comprising a compound selected from the group consisting of

35. (New) A composition comprising a compound selected from the group consisting of

of

36. (New) A composition comprising a compound selected from the group consisting

37. (New) A composition comprising at least one compound of a pharmaceutical composition of the formulae:

wherein:

X and Y may be different or the same and are independently selected from the group consisting of H, halogen, alkyl, alkoxy, aryl, substituted aryl, hydroxy, amino, alkylamino, cycloalkyl, morpholine, thiomorpholine, nitro, cyano, CF₃, OCF₃, COR₁, COOR₁, CONH₂, CONHR₁, and NHCOR₁;

n is an integer from one to four;

m is an integer from one to four;

R is selected from the group consisting of H, CH₃, C₂H₅, C₃H₇, C₄H₉, CH₂Ph, CH₂C₆H₄-F(p-), COCH₃, COCH₂CH₃, CH₂CH₂N(CH₃)₂, and CH₂CH₂CH₂N(CH₃)₂; and

A and B rings independently comprise unsubstituted or substituted carbon atoms ranging from four carbon atoms to ten carbon atoms.

38. (New) The composition of Claim 37, wherein the composition comprises a compound selected from the group consisting of

E-6977
$$O_2N + O_1 + O_2 + O_3 + O_4 + O_4 + O_5 + O_$$

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